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Title : Behavior and Ecology of Killer Whales in Monterey Bay, California

Category : Ecology

Student : Not Applicable

Preferred Format : Either Spoken or Poster Presentation

Abstract : At least three ecotypes of killer whales occur in the eastern North Pacific ("residents", "transients", "offshores"); and possibly a fourth, "LA Pod". Since 1987 we have photo-identified whales, recorded location, prey type, movement patterns, and behaviors on boat surveys in Monterey Bay; representing the only year-round and long-term database for populations of killer whales south of Washington State. Photographs of 325 identified whales (all types) were compared to other killer whale catalogs from the West Coast. Transients were present most during spring corresponding to occurrence of gray whale cow/calf pairs. Ninety-five percent of all identified transients were sighted during this spring period (combined years) compared to 30% during summer months suggesting gray whale calves are a significant food source for this population. Highly associated whales consisted of core groups of 2 to 7 whales (male pairs and females with juveniles/calves), but were linked by association to many other whales. Calving intervals and/or years since last known calf for females averaged 7 years (n=13). This low reproductive rate could be related to high levels of PCB's. The resident killer whales, specifically K and L pods that frequent the waters off Washington were sighted in Monterey Bay twice, during January 2000 and again L pod during March 2003; extending their known range nearly 1,251 km. These unusual events could represent declining food sources to the north or oceanographic changes. Significant findings are the long-range movements for all ecotypes, transients: 2,594 km; LA Pod: 2,847 km; and offshores: 3,680 km representing the longest known movements for any dolphin species. These extensive movements, along with seasonality and prey should be considered when managing and assessing populations of killer whales over particular regions. Monterey Bay is the only known region where 4 types of killer whales have overlapping ranges.